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Favorability as a function of exposure, race, and initial affective rating

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FAVORABILITY AS A FUNCTION OF EXPOSURE, RACE, AND INITIAL AFFECTIVE RATING

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Introduction

Zajonc (1968) proposed that repeated exposure to a stimulus is a sufficient condition for the enhancement of an attitude toward it. The "mere exposure" hypothesis is of such generality that it has many far-reaching implications, one of which is the consequences of biracial experiences. Integration of schools, housing, and employment all seem to be partially based upon Zajonc's hypothesis, as are Black Studies courses and Black media exposure. The underlying assumption of each of these examples is, in part, that biracial exposure will produce more favorable racial attitudes.

Both correlational and experimental evidence has been cited by Zajonc (1968) to support the mere exposure hypothesis. Offered as the former type is the relationship between word frequency and word value. Using 154 pairs of antonyms, Zajonc (1968) found for 82% of the items that the preferred word was also the most frequently used word. Similarly, Johnson, Thomson, and Frincke (1960) found that words of positive meaning have higher frequency counts than words of negative meaning. Further correlational evidence is offered by Strassburger and Wertheimer (1959) who observed that when Ss rated nonsense syllables for pleasantness they consistently assigned higher ratings to those syllables high in association value.

Similar experimental results have been reported by Johnson, Thomson, and Frincke (1960) who found that nonsense words increased in value on a good-bad scale as a result of repeated exposure. Zajonc (1968) found the same results using Turkish adjectives, Chinese characters, and photographs of college seniors. In the latter experiment, Zajonc presented 12 photographs at different frequencies (0, 1, 2, 5, 10, 25) and observed in nine cases that the higher frequencies generated increasingly positive affective ratings. These findings have been replicated in a variety of settings (Harrison, 1968a, 1969; Harrison & Zajonc, 1970; Zajonc & Rajecki, 1969).

Several studies have concerned themselves directly with interracial contact and its effect on racial attitudes. Sherif (1958) noted that when members of different racial groups are cooperatively engaged in the pursuit of common objectives under equal-status conditions, more positive racial attitudes result. Singer (1964) compared the racial attitudes of white fifth-graders in integrated and all-white schools and found that the children in the integrated school showed significantly more positive and fewer negative stereotypes about Negroes. Studies of residential interracial contact in noncompetitive, equal-status situations have reported substantial attitude enhancement (Deutsch & Collins, 1951; Haggstrom, 1963; Works, 1961).

Harrison (1968b) offers a theoretical explanation of the mere exposure hypothesis in terms of response competition. He proposes that a number of antagonistic response tendencies are produced by the appearance of a novel stimulus, and the tension state resulting from response competition is associated with negative affect. Further exposure to the stimulus reduces the response competition, and, as one response tendency achieves dominance, a corresponding reduction of the negative affect occurs. Maddi (1968) proposed that novel stimuli are initially perceived as favorable and only after extended exposure do they become associated with negative affect. Hence, he would predict negative affect for stimuli presented either a few or a great many times, and positive affect for moderate exposure.

Conflicting data has been presented by Brickman and Redfield (1970), Burgess and Sales (1970), Perlman and Oskamp (1970), and Rosenblood and Ostrom (1971). Burgess and Sales (1970) and Perlman and Oskamp (1970) both manipulated the context in which initially novel stimuli were presented, and both found that stimuli presented in a positive context became more positive with exposure, while stimuli presented in a negative context tended to become more negative with exposure. A similar pattern was observed by Brickman and Redfield (1970).

Perlman and Oskamp (1970) presented Negro and white stimulus persons in positive, neutral, and negative settings. Their analysis revealed a significant effect due to content

of the photographs; positive content exposure enhanced evaluation and negative content exposure decreased evaluation. In comparison to the white stimuli, the Negro photographs displayed a smaller effect of positive exposure and a greater effect of negative exposure. The neutral stimuli provided only weak support for the mere exposure hypothesis.

Burgess and Sales (1970) account for these conflicting results with a simple explanation based upon classical conditioning. This association hypothesis assumes that the context of the stimulus situation becomes conditioned to the stimuli themselves, and the strength of conditioning increases with increasing exposure. The data reported by Zajonc (1968) is thus explained in terms of the positive affect of the experimental situation being transferred to the exposed stimulus, while the conflicting Perlman and Oskamp (1970) results are explained by the negative context of the situation being increasingly conditioned to the stimuli.

Using abstract art as stimuli, Rosenblood and Ostrom (1971) observed an exposure effect for initially unfavorable stimuli but not for initially favorable stimuli. In contrast to Zajonc's prediction, they report a significant convergence of the favorability ratings, with the negative stimuli becoming more positive with increasing exposure and the positive stimuli decreasing in favorability. This convergence is contrary to Harrison's (1968b) response competition

hypothesis as well as Burgess and Sales' (1970) association explanation. Rosenblood and Ostrom (1971) concluded that adaptation is the best supported explanation of their results. They suggest that with increasing exposure to a stimulus the value of that stimulus approaches the subjective neutral point, or adaptation level.

The present study employed the Rosenblood and Ostrom (1971) technique together with Perlman and Oskamp's (1970) utilization of stimulus persons to examine the influence of exposure on initially positive and negative Negro and white photographs. Like the Rosenblood and Ostrom (1971) study, it was expected that a positive exposure effect would occur for the stimuli initially low in favorability, while the stimuli initially high would decline in favorability. An examination was also made for differences in the exposure effect as a function of race of slide, a result which has pertinent implications outside the laboratory setting.

Method

Subjects

Pre-experimental subjects were 20 male Caucasian undergraduate students enrolled in introductory psychology classes at the University of Nebraska at Omaha. Fifty white males, also introductory psychology students, served as Ss in the actual exposure experiment. Of these subjects, 25 were randomly assigned to the experimental group and 25 to the control group.

Apparatus

Twenty monochromatic 2 x 2 slides of senior class members taken from recent Hiram Scott College yearbooks were used as the stimuli. Instructions were presented to the Ss audibly on a Wallensak Stereo Tape Recorder (Model 6200). The slides were projected onto a screen by a Kodak Carousel Slide Projector (Model 850). The stimulus exposure duration and the interstimulus intervals were electronically controlled by a slide-tape synchronizer manufactured by Edmund Scientific Company (Stock number 41222). A two-page booklet was furnished to each subject. The first page contained the instructions and the second page the 11-point favorability scales upon which the Ss recorded their pretest ratings. Each 11-point scale ranged from Unfavorable (1) through Neutral (6) to Favorable (11).

Procedure

Pre-experimental procedure. A pilot study was conducted to determine the five positive and five negative photographs for each racial group. Ratings were made on a pool of 25 Negro and 25 white male slides, each preselected as being favorable or unfavorable. Since Negro slides were not judged as extreme as whites, the five most negative and five most positive Negro photographs were chosen and then matched with slides of whites to be perfectly comparable. It should be noted that the two most negative and the most positive white slides were rejected because of their extreme ratings.

The mean rating for the negative Negro slides was 4.15, while the rating for the corresponding white slides was 4.22. The average favorabilities for the positive stimuli were 7.56 and 7.70 for Negro and white photographs, respectively. Two *t* tests were computed to assess the assignment of the 20 slides to their respective categories. The affective ratings of the race by initial favorability categories were compared, with the resulting *t* values all being nonsignificant ($p > .05$).

Experimental procedure. The subjects were seated, in groups ranging in size from 4 to 10 (median 6.0), in a large experimental room. The eight groups were assigned to the experimental or control conditions in the order of ABBA the sequence being repeated twice. Each S was presented the two-page booklet and asked to read and listen to the instructions, which were as follows:

> The purpose of this experiment is to study whether photographs can be used in forming impressions of people. You will view a number of slides of individuals, each presented for a two-second interval. After viewing a slide you will have five seconds to rate that person on an 11-point scale. Mark your judgments about each person on the scale from Unfavorable to Favorable. Your judgments should be made on the basis of how much the person appeals to you or how pleasing he seems.
>
> For example, if you feel that he is extremely unfavorable or very unappealing to you, mark an X as follows...(Experimenter instructs).
>
> If you feel that the individual is extremely favorable or very pleasing to you, mark an X as follows...(Experimenter instructs).
>
> If you feel indifferent about a person mark an X as follows...(Experimenter instructs).

> If the person is somewhat more unfavorable than neutral, yet not highly unfavorable, mark an X in a space somewhere between Neutral and Unfavorable, depending upon the amount of appeal you perceive. If the person is somewhat more favorable than neutral, yet not highly favorable, mark an X in a space somewhere between Neutral and Favorable. Students have previously found these slides to range along the entire continuum from Unfavorable to Favorable.
>
> Be sure to mark an X on the scale for every slide shown. Place your X in the middle of spaces, not on the boundaries. In other words, do this... and NOT this...(Experimenter instructs).
>
> Do not put more than one X on any one slide scale. It is important that you assign a scale value to each slide based on your first impression of that person. Do not puzzle over any one person. Please be as accurate as possible about your feelings.

During the pretest condition, Ss rated their favorability toward each of the 20 slide photographs. Each slide was exposed for a 2-second duration, followed by a 4-second interval (blank screen) which provided enough light and time for the subject to record his rating. In the pre- and posttest slide sequences every four trials were balanced in terms of race and favorability. The number of every fifth slide was announced to the Ss to eliminate confusion, and the booklets were gathered by E at the conclusion of the pretest condition.

The second phase of the experimental procedure involved additional stimulus exposure for the experimental group, who were instructed to "Now view these slides without rating them." This exposure condition consisted of the presentation of 10 slide sequences, each sequence containing

20 slides. Race and initial favorability were chosen at random throughout each sequence, and each slide was again viewed for a 2-second exposure duration. The decision to use 10 repetitions for each stimulus was based upon previous research, which has indicated that 10 presentations of a novel stimulus are necessary for a significant exposure effect (Perlman & Oskamp, 1970; Zajonc, 1968). The control group was required to perform an inverted alphabet printing task for a period of time equal to the exposure process. Instructions for the control group's interpolated task were as follows:

> This part of the experiment is a study of some aspects of how people perform skills involving motor coordination. During this session you will be asked to print in alphabetical order the letters of the alphabet in an inverted or upside-down arrangement.
>
> You are to concentrate on speed primarily since your score depends on how many letters you print correctly. If you knowingly make a mistake, simply print right over it and continue printing. It might help you to know that certain letters are exactly the same whether printed upside down or rightside up, such as H, I, N, O, S, X, and Z. When I give you the signal, start printing from the right side to the left side of the paper starting on the top line of the paper and printing the alphabet upside down and in alphabetical order. When you complete one line, continue with the next line until you complete the page. Each time you complete the alphabet simply start printing the alphabet again from that point on the page. Continue in this manner until I ask you to stop. Do you have any questions?

Following the exposure condition all Ss were given a second rating scale and required to rate their favorability toward the 20 original slides. Instructions for this post-test condition were "Now rate these slides." All other aspects of this part of the experiment were identical in procedure to the pretest condition. Withholding the post-test rating scale until after the exposure condition was carried out as a precaution against Ss attempting to memorize their pretest ratings. It was hoped that since the subjects were not aware that they would be required to complete an additional rating scale, they would not attempt to memorize their initial ratings. At the conclusion of the experimental procedure the full purpose and implications of the project were discussed.

Results

The five ratings for each race by favorability category were totaled for each S to calculate the dependent measure. Two separate analyses of variance were computed to evaluate pretest and exposure differences. A 2 (Treatment) X 2 (Race) X 2 (Initial Favorability) repeated measures analysis on pretest ratings was computed to determine if any initial differences existed among the treatment groups, race of stimulus, and initial favorability categories. A 2 (Treatment) X 2 (Tests) X 2 (Race) X 2 (Initial Favorability) repeated measures analysis of variance was computed to test the hypothesis that a positive exposure effect would occur

for the stimuli initially low in favorability, while the stimuli initially judged as being highly favorable would decrease in affective rating. In addition, an examination was made for any differences in the exposure effect related to race of slide.

Pretest Analysis

A complete summary table of the pretest analysis is located in the Appendix. The pretest analysis revealed a significant initial favorability factor. The resulting F was highly significant (F=272.06, df=1/48, $p<.001$), which indicated the slides indeed represented distinct high- and low-favorability categories.

The triple-order interaction of treatment by race by initial affective value produced a significant F (6.39, df=1/48, $p<.025$). For the experimental group, the low favorability white slides were rated lower than the low favorability Negro slides. Conversely, for the control group the low favorability Negro slides were rated lower than the white slides. Since subjects were randomly assigned to treatment groups, this significance may be attributable to a Type I error. Another explanation may be that experimental bias somehow intruded during the procedure, resulting in the experimental and control groups being treated differently.

No additional main or interactional effects were observed to be significant in the pretest analysis.

Exposure Analysis

A complete analysis of variance summary table can be found in the Appendix. The overall exposure effect is illustrated in Figure 1. It is evident that the experimental group, which received the exposure condition, exhibited a larger pre- to post-test increase in affective rating than did the control group. This treatment by tests interaction

- - - - - - - - - - - - - - -

Insert Figure 1 about here

- - - - - - - - - - - - - - -

was significant at the .001 level (F=42.64, df=1/48). A simple main effects analysis revealed that the experimental group rated slides significantly higher on the posttest than did the control group (F=17.09, df=1/24, $p<.001$). However, no significant difference was observed between the treatment groups on the pretest ratings. Similarly, the experimental group's favorability ratings significantly increased from the pretest to the posttest condition (F=25.72, df=1/24, $p<.001$), while the control group's did not (F=0.009, df=1/24, $p>.05$).

From Rosenblood and Ostrom's (1971) work it was predicted that a convergence of the high- and low-favorability categories would result as a function of exposure. Figure 2 reveals that this expectation was only partially confirmed. As expected, an increase in favorability as a function of exposure was found for the slides initially rated as low in favorability (see graph A of Figure 2).

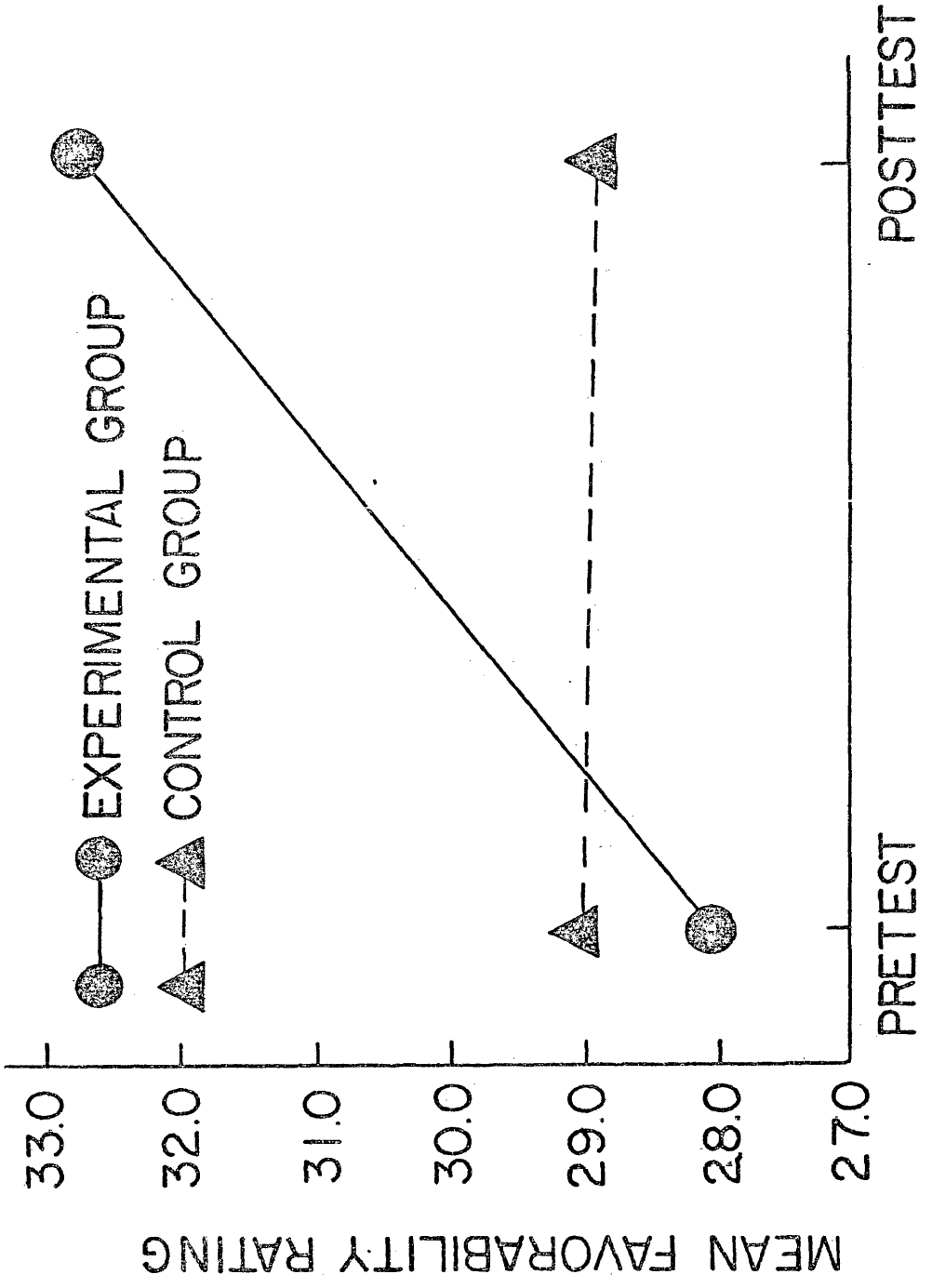

Fig. 1. Mean favorability as a function of exposure.

- - - - - - - - - - - - - - -

Insert Figure 2 about here

- - - - - - - - - - - - - - -

However, as graph B of Figure 2 illustrates, exposure also produced an increase in affective rating for the highly favorable slides, a result contrary to expectation. In fact, a close inspection of both graphs in Figure 2 reveals that the increase for high favorability slides was greater than the increase for low favorability slides. A test of this inconsistency of exposure as a function of initial favorability category is contained in the triple-order interaction of treatment by tests by initial favorability level, and was found to be marginally significant ($F=3.13$, $df=1/48$, $p<.09$). Hence, not only did the high favorability slides increase in affective value as a function of exposure, but a suggestion is apparent in the present data that a larger increase took place for these slides than for the slides of low favorability.

No other main or interactional effects relating to the exposure condition were found to be significant.

Discussion

The results of the present experiment support Zajonc's "mere exposure" hypothesis by demonstrating that exposure to an integrated slide sequence is a sufficient condition for the enhancement of favorability. This effect can be readily seen in Figure 1, which indicates the significant increase in

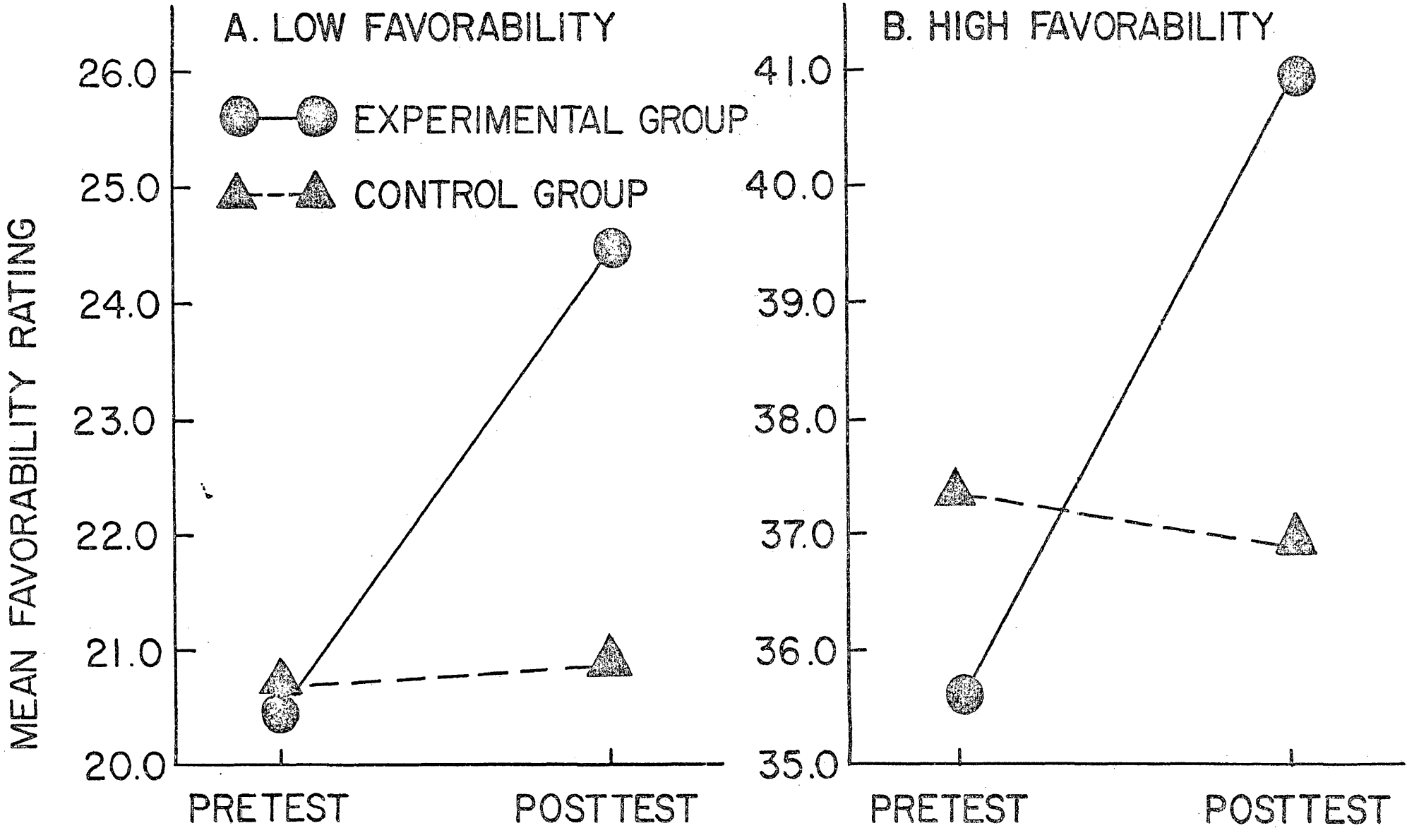

Fig 2. Favorability rating as a function of exposure and initial affective value.

favorability for the experimental group as a function of exposure. While the control group's ratings decreased slightly as a result of the interpolated task they performed, this decrease was not significant and is attributible to random error.

Zajonc's contention has been verified by other researchers (Harrison, 1968a, 1969; Harrison & Zajonc, 1970; Johnson, Thomson, & Frincke, 1960; Zajonc & Rajecki, 1969) and at least partially verified by still others (Burgess & Sales, 1970; Perlman & Oskamp, 1970; Suedfeld, Epstein, Buchanan, & Landon, 1971). The present study, however, has further extended the mere exposure hypothesis in two ways. First, the biracial experience was included by exposing subjects to an integrated slide sequence. In addition, and in answer to Jakabovits' (1968) criticism that the mere exposure hypothesis applies only to initially neutral stimuli, it has been found to apply to initially positive and negative stimuli as well. The results also seem to support Harrison's (1968b) response competition hypothesis, since an increase in favorability was found for both the high favorability and low favorability categories.

The prediction, based on Rosenblood and Ostrom's (1971) results, that a positive exposure effect would occur for the initially low favorability material, but not for high favorability material was only partially supported.

Specifically, as graphed in Figure 2, the expected convergence toward neutrality of the initial affective ratings was not evident, rather, the exposure effect was demonstrated for both high and low favorability categories.

While Rosenblood and Ostrom's (1971) result was partially confirmed in one sense, in another sense the present experiment offers contrasting results. From Rosenblood and Ostrom's (1971) study less of an increase in favorability was expected for the high favorability slides than for the low favorability slides. However, not only did the initially high favorability category increase in affective value, but there seems to be evidence to indicate that it increased significantly more than did the initially low favorability category. This major result tends to discredit the adaptation level hypothesis as posited by Rosenblood and Ostrom (1971).

There are several major differences between the present study and Rosenblood and Ostrom's (1971) which may account for their different results. Faces are certainly different than abstract art, and it is possible that exposure could have a different effect on each. This is an even stronger possibility when the results of both studies are examined closer. Rosenblood and Ostrom (1971) appear to have received a slight increase for initially highly favorable art pieces as a result of 10 exposures. It was only after 20 exposures that the significant convergence occurred.

It remains to be seen what effect 20 exposures has on the affective value of initially high and low favorability human faces. Another explanation of the differences between the experiments might reside in the rating scales used. Rosenblood and Ostrom (1971) employed a 7-point rating scale, while the present study used an 11-point scale. In their experiment Rosenblood and Ostrom (1971) report mean ratings of 2.55 for low favorability slides and 5.13 for high favorability slides. These means indicate that in their study Rosenblood and Ostrom used high and low favorability categories which were more differentiated than in the present experiment. With these means it is apparent that a scale with limits at one and seven leaves little room for the negative slides to decrease or the positive slides to increase. For this to occur, Ss would have to consistently use the extreme values. Thus it appears that the difference in exposure effect between these two studies might possibly be an artifact of the rating scale used.

The triple-order interaction of treatment by race by initial affective value was found to be significant in both analyses, making a Type I error explanation difficult to accept. Rosnow and Suls (1970) have observed an increase in the probability of Type I errors for Ss willingly participating in pretest-posttest attitude change experiments. Baum (1971) also found a similar triple-order interaction

which appeared attributable to a Type I error. Thus it seems that significant interactions are common in this type of experiment, which indicates they probably are not Type I errors. Research in the future should be directed toward an examination of this.

Perhaps the most interesting result of the study is that the triple-order interaction of treatments by tests by race was nonsignificant. This indicated that race was not a factor in the exposure effect amd that the exposure treatment was as successful in improving the favorability ratings of Negroes as it was for whites. Perlman and Oskamp (1970) had previously found that Negro photographs displayed smaller effects of positive context exposure and greater effects of negative context exposure. Nothing similar to this was found in the present experiment.

The implications of this nonsignificant race factor are far-reaching. If indeed exposure enhances favorability across both races then it can be argued that integration of schools, employment, and housing should all lead to more positive racial attitudes, regardless of initial attitude. It must be quickly recognized, however, that exposure is only one aspect of the complex process of interracial interaction, and future research must take into account other factors if a generalization concerning integration is to be made. A clear distinction must also be kept between attitude and behavior, which can differ remarkably as a

result of the influence of interracial interaction.

Future research on the exposure effect on race will have to concern itself with the many factors not touched on in the present study. Other interesting questions important for future research might be the developmental course of the influence of exposure on intergroup attitudes, and the need for naturalistic studies which could examine this influence is becoming more evident. Certainly the exposure effect must also be determined for Negro Ss if a complete understanding of integration is to be attained, since they as well as whites will be involved in the process. The present study was also restricted to males, while Rosenblood and Ostrom (1971) used only female subjects. Studies in the future should concern themselves with sex of subject and sex of slide to enable an overall picture to develop. It is only through research along these lines that a thorough knowledge of the mere exposure hypothesis and its implications will be achieved.

References

Baum, M. R. Favorability as measured by frequency of exposure to Black and white college seniors. Unpublished manuscript, 1971.

Brickman, P., & Redfield, J. Drive and predisposition as factors in the attitudinal effects of mere exposure. Paper presented at the meeting of the American Psychological Association, Miami Beach, September, 1970.

Burgess, T. D. G., II, & Sales, S. M. Attitudinal effects of "mere exposure": A re-evaluation. Unpublished manuscript, Carnegie-Mellon Institute, 1970.

Deutsch, M., & Collins, M. E. Interracial housing: A psychological evaluation of a social experiment. Minneapolis: University of Minnesota Press, 1951.

Haggstrom, W. C. Self-esteem and other characteristics of residentially desegregated Negroes. Dissertation Abstracts, 1963, 23, 3007-3008.

Harrison, A. A. Exposure, favorability, and item endorsement. Psychological Reports, 1968, 23, 1070. (a)

Harrison, A. A. Response competition, frequency, exploratory behavior, and liking. Journal of Personality and Social Psychology, 1968, 9, 363-368. (b)

Harrison, A. A. Exposure and popularity. Journal of Personality, 1969, 37, 359-377.

Harrison, A. A., & Zajonc, R. B. The effects of frequency and duration of exposure on response competition and affective ratings. Journal of Psychology, 1970, 75, 163-169.

Jakobovits, L. A. Effects of mere exposure: A comment. Journal of Personality and Social Psychology Monograph Supplement, 1968, 9 (2, part 2), 30-32.

Johnson, R. C., Thomson, C. W., & Frincke, G. Word values, word frequency, and visual duration thresholds. Psychological Review, 1960, 67, 332-342.

Maddi, S. R. Meaning, novelty, and affect: Comments on Zajonc's paper. Journal of Personality and Social Psychology Monograph Supplement, 1968, 9 (2,part 2), 28-29.

Perlman, D., & Oskamp, S. The effects of picture content and exposure frequency on evaluations of Negroes and whites. Paper presented at the meeting of the American Psychological Association, Miami Beach, September, 1970.

Rosenblood, L., & Ostrom, T. M. Is "mere exposure" merely adaptation? Paper presented at the meeting of the Midwestern Psychological Association, Detroit, May, 1971.

Rosnow, R. L., & Suls, J. M. Reactive effects of pretesting in attitude research. Journal of Personality and Social Psychology, 1970, 15, 338-343.

Sherif, M. Superordinate goals in the reduction of intergroup conflict. American Journal of Sociology, 63, 1958, 349-356.

Singer, D. The impact of interracial classroom exposure on the social attitudes of fifth grade children. Unpublished manuscript, 1964.

Strassburger, F., & Wertheimer, M. The discrepancy hypothesis of affect and association value of nonsense syllables. Psychological Reports, 1959, 5, 528.

Suedfeld, P., Epstein, Y. M., Buchanan, E., & Landon, P. B. Effects of set on the "Effects of mere exposure". Journal of Personality and Social Psychology, 1971, 17, 121-123.

Works, E. The prejudice-interaction hypothesis from the point of view of the Negro minority group. American Journal of Sociology, 1961, 67, 47-52.

Zajonc, R. B. Attitudinal effects of mere exposure. Journal of Personality and Social Psychology Monograph Supplement, 1968, 9 (2, part 2), 1-27.

Zajonc, R. B., & Rajecki, D. W. Exposure and affect: A field experiment. Psychonomic Science, 1969, 17, 216-217.

Appendix

Table 1

Analysis of Variance: Pretest Analysis (N=50)

SV	df	MS	F
Between S			
Treatment	1	46.0800	1.11
Experimental Error	48	41.3820	
Within S			
Race	1	0.5000	0.03
Treatment x Race	1	48.0200	2.51
Experimental Error	48	19.0829	
Initial Favorability	1	12608.720	272.07**
Treatment x Initial Favorability	1	35.2800	0.76
Experimental Error	48	46.3437	
Race x Initial Favorability	1	7.2200	0.54
Treatment x Race x Initial Favorability	1	84.5000	6.39*
Experimental Error	48	13.2245	

*p<.025

**p<.001

Table 2

Analysis of Variance: Exposure Analysis (N=50)

SV	df	MS	F
Between S			
Treatment	1	207.3600	2.99
Experimental Error	48	69.2893	
Within S			
Tests	1	533.6100	39.50**
Treatment x Tests	1	576.0000	42.64**
Experimental Error	48	13.5081	
Race	1	17.6400	0.43
Treatment x Race	1	118.8100	2.92
Experimental Error	48	40.6781	
Initial Favorability	1	25728.1600	311.83**
Treatment x Initial Favorability	1	9.6100	0.11
Experimental Error	48	82.5048	
Tests x Race	1	10.2400	1.18
Treatment x Tests x Race	1	1.2100	0.14
Experimental Error	48	8.6468	
Race x Initial Favorability	1	50.4100	1.99
Treatment x Race x Initial Favorability	1	153.7600	6.08*
Experimental Error	48	25.2777	
Tests x Initial Favorability	1	2.5600	0.28
Treatment x Tests x Initial Favorability	1	28.090	3.13
Experimental Error	48	8.976	

Table 2 (Cont')

Tests x Race x Initial Favorability	1	10.8900	1.53
Treatment x Tests x Race x Initial Favorability	1	0.3599	0.05
Experimental Error	48	7.0989	

*p<.025
**p<.001